

## CLAIMS:

1. A method of performing optimum power control in respect of an optical storage device (10) prior to writing data thereto, the method comprising performing an optimum power control process by:

a. performing a test write on a relatively small segment (12) of said optical storage device (10); and

b. reading back the test pattern written to said optical storage device (10) during performance of said test write;

in respect of a plurality of linear velocities of rotation of said optical storage device (10), so as to obtain a function mapping write speed to power, steps (a) and (b) being performed on substantially the same relatively small segment (12) of said optical storage device (10) for each of said plurality of linear velocities of rotation.

2. A method according to claim 1, wherein the relatively small segment comprises the outermost radius (12) of the optical storage device (10).

15

3. A method according to claim 1 or claim 2, wherein an optimum power control process performed at both the innermost (14) and the outermost radii (12) of the optical storage device (10).

20

4. A method according to claim 3, wherein said optimum power control process is performed at the write speed associated with the innermost radius.

25

5. A method according to any one of the preceding claims, wherein power factor is generated using the results of an optimum power control process performed at a plurality of different write speeds on said outermost radius (12) of the optical storage device (10).

6. A method according to any one of the preceding claims, wherein the optical storage device (10) comprises a zoned constant linear velocity (ZCLV) disc or a constant angular velocity (CAV) disc.

7. Apparatus for performing optimum power control in respect of an optical storage device prior to writing data thereto, the apparatus comprising means for performing an optimum power control process by performing a test write on a relatively small segment 5 of said optical storage device and reading back the test pattern written to said optical storage device during performance of said test write in respect of a plurality of liner velocities of rotation of said optical storage device, so as to obtain a function mapping write speed to power, the test write in respect of each of said plurality of linear velocities or rotation being performed on substantially the same relatively small segment of said optical storage device.

10

8. A method of writing data to an optical storage device (10) including the method according to any one of claims 1 to 6.

15

9. Apparatus for writing data to an optical storage device (10) including the apparatus for performing optimum power control according to claim 7.